



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

# BIOLOGICAL BULLETIN

OF THE

## Marine Biological Laboratory

WOODS HOLL, MASS.

### Editorial Staff.

E. G. CONKLIN—*The University of Pennsylvania.*

JACQUES LOEB—*The University of California.*

T. H. MORGAN—*Columbia University.*

W. M. WHEELER—*American Museum of Natural History, New York.*

C. O. WHITMAN—*The University of Chicago.*

E. B. WILSON—*Columbia University.*

### Managing Editor.

FRANK R. LILLIE—*The University of Chicago.*

VOLUME VII

WOODS HOLL, MASS.

JUNE, 1904, TO NOVEMBER, 1904.

PRESS OF  
THE NEW ERA PRINTING COMPANY  
LANCASTER, PA

# CONTENTS OF VOL. VII.

## NO. 1. JUNE, 1904.

	PAGE
ARTHUR W. GREELEY.....	I
ARTHUR W. GREELEY: <i>Experiments on the Physical Structure of the Protoplasm of Paramœcium and its Relation to the Reactions of the Organism to Thermal, Chemical and Electrical Stimuli</i> .....	3
FRANK R. LILLIE: <i>Experimental Studies on the Development of Organs in the Embryo of the Fowl (Gallus domesticus)</i> ...	33
W. K. GREGORY: <i>The Relations of the Anterior Visceral Arches to the Chondrocranium</i> .....	55
EVERETT F. PHILLIPS: <i>Variation in Bees: A Reply to Mr. Lutz</i> .	70
L. R. CARY: <i>Notes on a Peculiar Actinozoan Larva</i> .....	75

## NO. 2. JULY, 1904.

J. E. DUERDEN: <i>The Morphology of the Madreporaria, V. Septal Sequence</i> .....	79
BASHFORD DEAN: <i>Evolution in a Determinate Line as Illustrated by the Egg-cases of Chimæroid Fishes</i> .....	105
WILLIAM PATTEN: <i>New Facts Concerning Bothriolepis</i> .....	113

## NO. 3. AUGUST, 1904.

C. M. CHILD: <i>Form-Regulation in Cerianthus, V</i> .....	127
ALICE M. BORING: <i>Closure of Longitudinally Split Tubularian Stems</i> .....	154
T. H. MORGAN AND A. E. SCHIEDT: <i>Regeneration in the Planarian Phagocata gracilis</i> .....	160
ESTHER F. BYRNES: <i>On the Skeleton of Regenerated Anterior Limbs in the Frog</i> .....	166
ADELE M. FIELDE: <i>Observations on Ants in their Relation to Temperature and to Submergence</i> .....	170

## NO. 4. SEPTEMBER, 1904.

S. W. WILLISTON: <i>The Temporal Arches of the Reptilia</i> .....	175
C. M. CHILD: <i>Form-Regulation in Cerianthus, VI</i> .....	193
ADELE M. FIELDE: <i>Portable Ant-Nests</i> .....	215

EDWIN G. CONKLIN: <i>Experiments on the Origin of the Cleavage Centrosomes</i> .....	211
--	-----

NO. 5. OCTOBER, 1904.

ADELE M. FIELDE: <i>Power of Recognition Among Ants</i> .....	227
CHAS. W. HARGITT: <i>Notes on a Hitherto Undescribed Hydroid from Long Island Sound</i> .....	251
EDWIN C. STARKS: <i>A Synopsis of Character of some Fishes Belonging to the Order Haplomi</i> .....	254

NO. 6. NOVEMBER, 1904.

C. M. CHILD: <i>Form-Regulation in Cerianthus, VII</i> .....	263
CHARLES D. SNYDER: <i>Locomotion in Batrachoseps with Severed Nerve-cord</i> .....	280
ALEXANDER G. RUTHVEN: <i>Butler's Garter Snake</i> .....	289
ADELE M. FIELDE: <i>Tenacity of Life in Ants</i> .....	300